

Japan Patent Office
Utility Model Laying-Open Gazette

Utility Model Laying-Open No. 7-33106
Date of Laying-Open: June 20, 1995
International Class(es): A44B 11/00
A44B 21/00

(6 pages in all)

Title of the Invention: String Stopper
Utility Model Appln. No. 65032/1993
Filing Date: December 6, 1993
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(19) 日本国特許庁 (J P)

(12) 公開実用新案公報 (U)

(11) 実用新案出願公開番号

実開平7-33106

(43) 公開日 平成7年(1995)6月20日

(51) Int.Cl.⁵

A 4 4 B 11/00
21/00

識別記号

庁内整理番号

F I

技術表示箇所

審査請求 未請求 請求項の数 5 O L (全 2 頁)

(21) 出願番号 実願平5-65032
(22) 出願日 平成5年(1993)12月6日

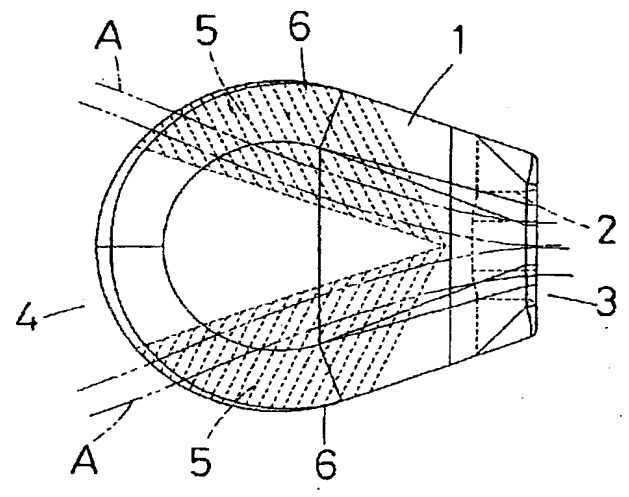
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(54) 【考案の名称】 紐止め具

(57) 【要約】

【目的】 バネを使用することなく長期にわたって優れた紐止め機能を発揮する紐止め具を提供することを目的としている。

【構成】 ウレタン、ナイロン、ABS、ポリプロピレン等の合成樹脂よりなる紐止め主体1の一端側に、二本の紐Aを一緒に引き揃えて挿入する挿入口2を設けるとともに、該挿入口2の奥から二方に分岐して紐止め主体1の両側面をそれぞれの開口面とした断面V字形の溝であって、対向する溝内面には、挿入口側3からその他端側4に向かい且つ溝底から開口面に向かって傾斜した多数の山形条5が形成された二筋の紐挟着溝6を設けた構成である。



(2)

実開平7-33106

【実用新案登録請求の範囲】

【請求項1】 合成樹脂材料又は金属材料からなる紐止め主体の一端側に、二本の紐を挿入する挿入口を設けるとともに、該挿入口の奥から二方に分岐して紐止め主体の両側面をそれぞれの開口面とした断面V字形の溝であって、対向する溝内面には、挿入口側からその他端側に向かい且つ溝底から開口面に向かって傾斜した多数の山形条が形成された二筋の紐挟着溝を設けたことを特徴とする紐止め具。

【請求項2】 一連となる挿入口と紐挟着溝がそれぞれ独立して形成され、紐が個別に挿通されて挟着されるようにした請求項1記載の紐止め具。

【請求項3】 紐止め主体が、断面V字形の溝に沿って縦割りの左右対称に分割した部材を合体結合して形成されたものである請求項1又は2記載の紐止め具。

【請求項4】 断面V字形溝の底が、断面U字形の曲面

となっている請求項1、2又は3記載の紐止め具。

【請求項5】 紐止め主体は、合成樹脂、金属、セラミックのいずれかで形成されている請求項1、2、3又は4記載の紐止め具。

【図面の簡単な説明】

【図1】 本考案に係る紐止め具の正面図である。

【図2】 本考案に係る紐止め具の平面図である。

【図3】 本考案に係る靴紐止め具の右側面図である。

【図4】 本考案に係る靴紐止め具の左側面図である。

【図5】 他の実施例に係る靴紐止め具の平面図である。

【図6】 同実施例に係る靴紐止め具の正面図である。

【符号の説明】

1 紐止め主体

3 挿入口側

5 山形条

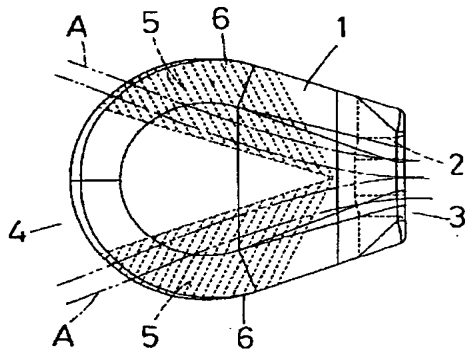
A 紐

2 挿入口

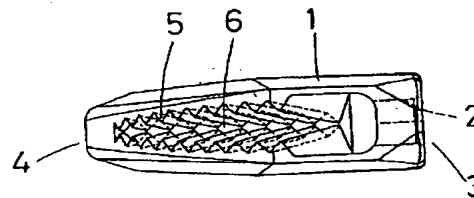
4 他端側

6 紐挟着溝

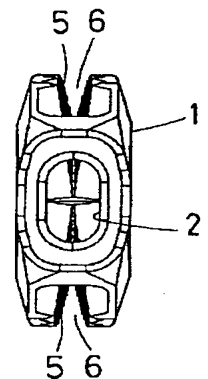
【図1】



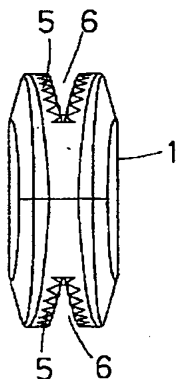
【図2】



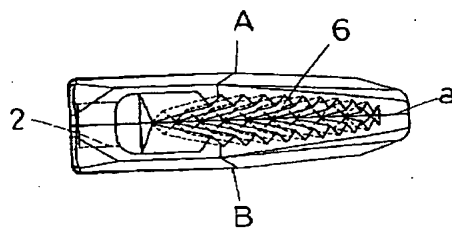
【図3】



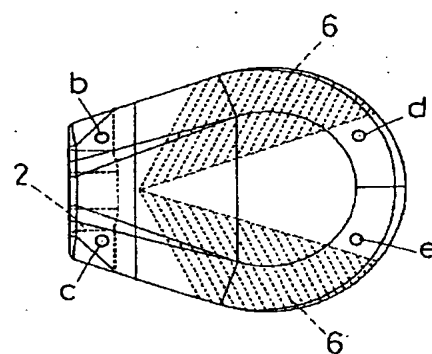
【図4】



【図5】



【図6】



【考案の詳細な説明】**【0001】****【産業上の利用分野】**

本考案は、主として紐締めタイプの袋物、靴、帽子等の紐を通して絞り締めするのに使用される紐止め具に関するものである。

【0002】**【従来の技術】**

従来のこの種の紐止め具は、径方向に紐通し孔を穿設した外筒と、この外筒に嵌合し軸部の径方向に貫通した紐通し孔を有する嵌合子と、該嵌合子を摺動させるバネの三部品からなっており、特開昭62-111414号公報、特開昭63-272302号公報には、部品点数を少なくするために、前記嵌合子の下部にバネを一体的に設けたものが開示されている。

【0003】

これらの紐止め具は、嵌合子をバネに抗して外筒内へ押し込み、外筒の紐通し孔と嵌合子の紐通し孔を一致させた状態で紐通し孔に紐を貫通させ、所定位置で嵌合子を復元させ、紐通し孔の食い違いによって紐を蛇行させて固定しようとするものである。

【0004】**【考案が解決しようとする課題】**

しかし、これらの紐止め具は、バネの力による押圧であるために緩み易く十分な紐固定ができない点及びバネ部分の損傷により早期に紐固定機能を喪失する点に解決すべき課題があった。

【0005】

本考案の目的とするところは、バネを使用することなく長期にわたって優れた紐止め機能を発揮する紐止め具を提供することにある。

【0006】**【課題を解決するための手段】**

本考案の紐止め具は、上記課題を解決するものであって、合成樹脂材料又は金属材料からなる紐止め主体の一端側に、二本の紐を挿入する挿入口を設けるとと

もに、該挿通口の奥から二方に分岐して紐止め主体の両側面をそれぞれの開口面とした断面V字形の溝であって、対向する溝内面には、挿入口側からその他端側に向かい且つ溝底から開口面に向かって傾斜した多数の山形条が形成された二筋の紐挟着溝を設けたことを特徴とするものであり、必要に応じて、一連となる挿入口と紐挟着溝がそれぞれ独立して形成し、紐が個別に挿通されて挟着されるように変更し、また、紐止め主体を、断面V字形の溝に沿って縦割りの左右対称に分割した部材同士を合体結合して形成し、或は断面V字形溝の底を、断面U字形の曲面とする。

【0007】

【作用】

上記のように構成された紐止め具は、例えば、袋物の開口縁部に通された締め紐の両端部を挿入口から挿入し、それぞれの紐挟着溝から引き出して使用するものであるが、紐を引張りながらその端部を紐挟着溝に挟み込んで引張りを解除すると、紐の弾力的な縮み若しくは緩みによって紐挟着溝内を戻ろうとするが、溝がV字形であり、しかも対向する溝内面には、挿入口側からその他端側に向かい且つ溝底から開口面に向かって傾斜した多数の山形条が形成されているから、紐は山形条の対向した溝底へ楔状に嵌り込んで、緩み方向への移動を確実に阻止して挟着されるように作用する。

【0008】

【実施例】

図1は本考案に係る紐止め具の正面図、図2は紐止め具の平面図、図3は紐止め具の右側面図、図4は靴紐止め具の左側面図である。

【0009】

本考案の紐止め具は、ナイロン、ABS、ウレタン、ポリプロピレン等の合成樹脂よりなる紐止め主体1の一端側に、二本の紐Aを一緒に引き揃えて挿入する挿入口2を設けるとともに、該挿通口2の奥から二方に分岐して紐止め主体1の両側面をそれぞれの開口面とした断面V字形の溝であって、対向する溝内面には、挿入口側3からその他端側4に向かい且つ溝底から開口面に向かって傾斜した多数の山形条5が形成された二筋の紐挟着溝6を設けた構造となっている。

【0010】

上記のように構成された紐止め具は、袋物、靴、帽子等の締め紐の両端を引き揃えて挿入口2から挿入しそれぞれの紐挟着溝6で挟着する。

【0011】

そして靴紐Aを止めるには、紐を引張りながらその端部を紐挟着溝6の開口部より挟み込んで引張りを解除すると、紐の弾力的な縮み若しくは緩みによって紐挟着溝6内を戻ろうとするが、紐挟着溝6がV字形であり、しかも溝内面には挿入口側3からその他端側4に向かい且つ溝底から開口面に向かって傾斜した多数の山形条5が設けられているから、紐Aは山形条5の対向した溝底へ楔状に嵌り込んで、緩み方向への移動が固定されるようになるのである。

【0012】

なお上記実施例では、二本の紐Aを一緒に引き揃えて挿入する単一の挿入口2を設け、該挿入口2の奥には二方へ分岐した紐挟着溝6を設けた例で説明したが、二本の紐が個別に挿入される別々の挿入口から該挿入口と一連とした別々の紐挟着溝に挟着されるように、一連となる挿入口と紐挟着溝をそれぞれ独立して形成しても同一の作用と効果を達成することができる。

【0013】

また断面V字形の溝の底は、断面U字形（図示省略）とすることが、強度維持の点から好ましく、また、紐止め主体1は、図5に示すように断面V字形の溝に沿って分割線aにより左右対称に分割した部材A、Bを、図6に示すように挿入口2と紐挟着溝6を横切らない複数の位置b、c、d、eで、伝達溶着手段、直接溶着手段、リベッティング手段、金属インサート手段、スポット溶着又は溶接手段で合体結合して形成することが、成形製作上、型を単純化することができるので、製作コストを安価とすることができ、金属材料としてはアルミ合金を、またセラミックも使用することができる。

【0014】

【考案の効果】

以上説明したように本考案の靴紐止め具は、合成樹脂材料又は金属材料からなる紐止め主体の一端側に、二本の紐を挿入する挿入口を設けるとともに、該挿通

口の奥から二方に分岐して紐止め主体の両側面をそれぞれの開口面とした断面V字形の溝であって、対向する溝内面には、挿入口側からその他端側に向かい且つ溝底から開口面に向かって傾斜した多数の山形条が形成された二筋の紐挟着溝を設けたから、単一体でもって構成し製作することができ、部品の組み立てを必要とすることがなく、また紐の両端部を挿入口に通して、これを引張りながらその端部を紐挟着溝に挟み込んで引張りを解除すると、紐の弾力的な縮み若しくは緩みによって紐挟着溝内を戻ろうとするが、溝がV字形であり、しかも溝内面には挿入口側からその他端側に向かい且つ溝底から開口面に向かって傾斜した多数の山形条が形成されているから、紐は山形条の対向した溝底へ楔状に嵌り込んで、緩み方向への移動を確実に阻止して挟着される。

【0015】

また本考案によれば、紐を結ぶことなくワンタッチで確実に締め止めすることができるとともに、紐締めを解除する場合も、締める方向へ紐を僅かに引きながら紐挟着溝の開口側へ浮かせれば簡単な作業で行うことができる。

【0016】

さらに本考案においては、バネ作用をする部品を使用する必要がないため、従来のようにバネの損傷による早期機能喪失を解消することができる。

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[Translation done.]

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1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. **** shows the word which can not be translated.
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CLAIMS

[Utility model registration claim]

[Claim 1] While preparing insertion opening which inserts two strings in the end side of the string stop subject who consists of a synthetic-resin ingredient or a metallic material To the slot inner surface which is the slot of the cross-section V typeface which branched from the back of this insertion opening to the two way type, and made a string stop subject's both-sides side each effective area, and counters The string stops characterized by preparing the string fastening slot of two muscles in which the Yamagata ** of a large number which inclined toward a groove bottom to the effective area was formed toward the other end side from an insertion opening side.

[Claim 2] The string stops according to claim 1 by which insertion opening and the string fastening slot used as a single string are independently formed, respectively, and the string was inserted in and fastened according to the individual.

[Claim 3] The string stops according to claim 1 or 2 formed by carrying out coalesce association of the member which the string stop subject divided into the bilateral symmetry of vertical division along the slot of a cross-section V typeface.

[Claim 4] The string stops according to claim 1, 2, or 3 from which the bottom of a cross-section V typeface slot serves as a curved surface of a cross-section U typeface.

[Claim 5] String stop subjects are string stops according to claim 1, 2, 3, or 4 currently formed with synthetic resin, the metal, or the ceramic.

[Translation done.]

DETAILED DESCRIPTION

[Detailed explanation of a design]

[0001] [Industrial Application]

This design is related with the string stops used for extracting, fastening and carrying out mainly through strings, such as string bundle type pouches, shoes, and a hat.

[0002]

[Description of the Prior Art]

This conventional kind of string stops consist of three components of the spring which slides the outer case which drilled the string through hole in the direction of a path, the fitting child who has the string through hole which fitted into this outer case and was penetrated in the direction of a path of a shank, and this fitting child, and in order to lessen components mark, what prepared the spring in said fitting child's lower part in one is indicated by JP,62-111414,A and JP,63-272302,A.

[0003]

These string stops resist a spring, push in a fitting child into an outer case, make a string through hole penetrate a string in the condition of having made in agreement the string through hole of an outer case, and a fitting child's string through hole, and restore a fitting child in a predetermined location, and by the inconsistency of a string through hole, they tend to make a string move in a zigzag direction, and it is going to fix them.

[0004]

[Problem(s) to be Solved by the Device] However, these string stops had the technical problem which should be solved at the point of losing a string fixed function at an early stage by breakage on the point which cannot perform sufficient string immobilization it being easy to loosen since it is the press by the force of a spring, and a spring part.

[0005]

The place made into the object of this design is to offer the string stops which demonstrate the string stop function in which it excelled over the long period of time, without using a spring.

[0006]

[Means for Solving the Problem] While preparing insertion opening which inserts two strings in the end side of the string stop subject who the string stops of this design solve the above-mentioned technical problem, and consists of a synthetic-resin ingredient or a metallic material To the slot inner surface which is the slot of the cross-section V typeface which branched from the back of this insertion opening to the two way type, and made a string stop subject's both-sides side each effective area, and counters It is what is characterized by preparing the string fastening slot of two muscles in which the Yamagata ** of a large number which inclined toward a groove bottom to the effective area was formed toward the other end side from an insertion opening side. Insertion opening and the string fastening slot used as a single string form independently if needed, respectively. Coalesce association is carried out, and the members which changed so that a string might be inserted in and fastened according to an individual, and divided the string stop subject into the bilateral symmetry of vertical division along the slot of a cross-section V typeface are formed, or the bottom of a cross-section V typeface slot is made into the curved surface of a cross-section U typeface.

[0007]

[Function]

Although the string stops constituted as mentioned above insert a bundle string's both ends which the opening edge of pouches let pass from insertion opening and it is pulled out and used from each string fastening slot Although it is going to return string fastening Mizouchi according to a string's flexible contraction or slack if the edge is put between a string fastening slot for a string with tension and tension is canceled To the slot inner

surface which a slot is V typeface and moreover counters Since the Yamagata ** of a large number which inclined toward a groove bottom to the effective area is formed toward the other end side from the insertion opening side, a string fits into a wedge shape to the groove bottom where the Yamagata ** countered, and he acts so that migration in the direction of slack may be prevented certainly and it may be fastened.

[0008]

[Example]

The front view of the string stops which drawing 1 requires for this design, and drawing 2 are [the right side view of string stops and drawing 4 of the top view of string stops and drawing 3] the left side views of shoelace stops.

[0009]

While the string stops of this design form the insertion opening 2 which lengthens two strings A together, arranges them and inserts them in the end side of the string stop subject 1 who consists of synthetic resin, such as nylon, ABS, urethane, and polypropylene To the slot inner surface which is the slot of the cross-section V typeface which branched from the back of this insertion opening 2 to the two way type, and made the string stop subject's 1 both-sides side each effective area, and counters It has structure which formed the string fastening slot 6 of two muscles in which Yamagata ** 5 of a large number which inclined toward the effective area toward insertion opening side 3 to other end side 4 from the groove bottom was formed.

[0010]

The string stops constituted as mentioned above lengthen and arrange the ends of bundle strings, such as pouches, shoes, and a hat, insert them from the insertion opening 2, and are fastened in each string fastening slot 6.

[0011]

And although it is going to return the inside of the string fastening slot 6 according to a string's flexible contraction or slack if the edge is put for a string from opening of the string fastening slot 6 with tension and tension is canceled in order to stop Shoelace A The string fastening slot 6 is V typeface, and since Yamagata ** 5 of a large number which inclined toward the effective area toward insertion opening side 3 to other end side 4 from the groove bottom is moreover formed in the slot inner surface, String A fits into a wedge shape to the groove bottom where Yamagata ** 5 countered. Migration in the direction of slack comes to be fixed.

[0012]

In addition, although the example which formed the single insertion opening 2 which lengthens two strings A together, arranges them and inserts them, and formed the string fastening slot 6 which branched to the two way type in the inner part of this insertion opening 2 explained in the above-mentioned example Even if it forms independently insertion opening and the string fastening slot used as a single string, respectively so that it may be fastened to the separate string fastening slot made into this insertion opening and a single string from separate insertion opening with which two strings are inserted according to an individual, the same operation and effectiveness can be attained.

[0013]

As for the bottom of the slot of a cross-section V typeface, it is desirable from the point of maintenance on the strength to consider as a cross-section U typeface (graphic display abbreviation). Moreover, moreover, the string stop subject 1 The members A and B

divided into bilateral symmetry by the parting line a along the slot of a cross-section V typeface as shown in drawing 5 in two or more locations b, c, d, and e which do not cross the insertion opening 2 and the string fastening slot 6 as shown in drawing 6 Since carrying out coalesce association and forming with a transfer joining means, a direct joining means, a RIBETTINGU means, a metal-insert means, spot joining, or a welding means can simplify a mold on a shaping fabrication Fabrication cost can be made cheap and a ceramic can also use an aluminum containing alloy as a metallic material again.

[0014]

[Effect of the Device]

As explained above, while the shoelace stops of this design prepare insertion opening which inserts two strings in the end side of the string stop subject who consists of a synthetic-resin ingredient or a metallic material To the slot inner surface which is the slot of the cross-section V typeface which branched from the back of this insertion opening to the two way type, and made a string stop subject's both-sides side each effective area, and counters Since the string fastening slot of two muscles in which the Yamagata ** of a large number which inclined toward a groove bottom to the effective area was formed was prepared toward the other end side from the insertion opening side Although it is going to return string fastening Mizouchi according to a string's flexible contraction or slack if constitute that it is also with a single object, can manufacture, and do not need the assembly of components, and it lets a string's both ends pass to insertion opening, the edge is put between a string fastening slot for this with tension and tension is canceled A slot is V typeface, and since the Yamagata ** of a large number which inclined toward a groove bottom to the effective area is moreover formed in the slot inner surface toward the other end side from the insertion opening side, a string fits into a wedge shape to the groove bottom where the Yamagata ** countered, he prevents migration in the direction of slack certainly, and is fastened.

[0015]

Moreover, while according to this design being able to fasten certainly and being able to carry out a stop by one-touch, without tying a string, also when canceling a string bundle, if it floats to the opening side of a string fastening slot, lengthening a string slightly in the direction to fasten, it can carry out by the easy activity.

[0016]

Since it furthermore is not necessary in this design to use the components which carry out a spring operation, the early functio laesa by breakage on a spring is cancelable like before.

[Translation done.]

TECHNICAL FIELD

[Industrial Application]

This design is related with the string stops used for extracting, fastening and carrying out mainly through strings, such as string bundle type pouches, shoes, and a hat.

[0002]

[Translation done.]

PRIOR ART

[Description of the Prior Art]

This conventional kind of string stops consist of three components of the spring which slides the outer case which drilled the string through hole in the direction of a path, the fitting child who has the string through hole which fitted into this outer case and was penetrated in the direction of a path of a shank, and this fitting child, and in order to lessen components mark, what prepared the spring in said fitting child's lower part in one is indicated by JP,62-111414,A and JP,63-272302,A.

[0003]

These string stops resist a spring, push in a fitting child into an outer case, make a string through hole penetrate a string in the condition of having made in agreement the string through hole of an outer case, and a fitting child's string through hole, and restore a fitting child in a predetermined location, and by the inconsistency of a string through hole, they tend to make a string move in a zigzag direction, and it is going to fix them.

[0004]

[Translation done.]

EFFECT OF THE INVENTION

[Effect of the Device]

As explained above, while the shoelace stops of this design prepare insertion opening which inserts two strings in the end side of the string stop subject who consists of a synthetic-resin ingredient or a metallic material To the slot inner surface which is the slot of the cross-section V typeface which branched from the back of this insertion opening to the two way type, and made a string stop subject's both-sides side each effective area, and counters Since the string fastening slot of two muscles in which the Yamagata ** of a large number which inclined toward a groove bottom to the effective area was formed was prepared toward the other end side from the insertion opening side Although it is going to return string fastening Mizouchi according to a string's flexible contraction or slack if constitute that it is also with a single object, can manufacture, and do not need the assembly of components, and it lets a string's both ends pass to insertion opening, the edge is put between a string fastening slot for this with tension and tension is canceled A slot is V typeface, and since the Yamagata ** of a large number which inclined toward a groove bottom to the effective area is moreover formed in the slot inner surface toward the other end side from the insertion opening side, a string fits into a wedge shape to the groove bottom where the Yamagata ** countered, he prevents migration in the direction

of slack certainly, and is fastened.

[0015]

Moreover, while according to this design being able to fasten certainly and being able to carry out a stop by one-touch, without tying a string, also when canceling a string bundle, if it floats to the opening side of a string fastening slot, lengthening a string slightly in the direction to fasten, it can carry out by the easy activity.

[0016]

Since it furthermore is not necessary in this design to use the components which carry out a spring operation, the early function laesa by breakage on a spring is cancelable like before.

[Translation done.]

TECHNICAL PROBLEM

[Problem(s) to be Solved by the Device] However, these string stops had the technical problem which should be solved at the point of losing a string fixed function at an early stage by breakage on the point which cannot perform sufficient string immobilization it being easy to loosen since it is the press by the force of a spring, and a spring part.

[0005]

The place made into the object of this design is to offer the string stops which demonstrate the string stop function in which it excelled over the long period of time, without using a spring.

[0006]

[Translation done.]

MEANS

[Means for Solving the Problem] While preparing insertion opening which inserts two strings in the end side of the string stop subject who the string stops of this design solve the above-mentioned technical problem, and consists of a synthetic-resin ingredient or a metallic material To the slot inner surface which is the slot of the cross-section V typeface which branched from the back of this insertion opening to the two way type, and made a string stop subject's both-sides side each effective area, and counters It is what is characterized by preparing the string fastening slot of two muscles in which the Yamagata ** of a large number which inclined toward a groove bottom to the effective area was formed toward the other end side from an insertion opening side. Insertion opening and the string fastening slot used as a single string form independently if needed,

respectively. Coalesce association is carried out, and the members which changed so that a string might be inserted in and fastened according to an individual, and divided the string stop subject into the bilateral symmetry of vertical division along the slot of a cross-section V typeface are formed, or the bottom of a cross-section V typeface slot is made into the curved surface of a cross-section U typeface.

[0007]

[Translation done.]

OPERATION

[Function]

Although the string stops constituted as mentioned above insert a bundle string's both ends which the opening edge of pouches let pass from insertion opening and it is pulled out and used from each string fastening slot Although it is going to return string fastening Mizouchi according to a string's flexible contraction or slack if the edge is put between a string fastening slot for a string with tension and tension is canceled To the slot inner surface which a slot is V typeface and moreover counters Since the Yamagata ** of a large number which inclined toward a groove bottom to the effective area is formed toward the other end side from the insertion opening side, a string fits into a wedge shape to the groove bottom where the Yamagata ** countered, and he acts so that migration in the direction of slack may be prevented certainly and it may be fastened.

[0008]

[Translation done.]

EXAMPLE

[Example]

The front view of the string stops which drawing 1 requires for this design, and drawing 2 are [the right side view of string stops and drawing 4 of the top view of string stops and drawing 3] the left side views of shoelace stops.

[0009]

While the string stops of this design form the insertion opening 2 which lengthens two strings A together, arranges them and inserts them in the end side of the string stop subject 1 who consists of synthetic resin, such as nylon, ABS, urethane, and polypropylene To the slot inner surface which is the slot of the cross-section V typeface which branched from the back of this insertion opening 2 to the two way type, and made the string stop subject's 1 both-sides side each effective area, and counters It has structure which formed the string fastening slot 6 of two muscles in which Yamagata ** 5 of a large number which inclined toward the effective area toward insertion opening side 3 to

other end side 4 from the groove bottom was formed.

[0010]

The string stops constituted as mentioned above lengthen and arrange the ends of bundle strings, such as pouches, shoes, and a hat, insert them from the insertion opening 2, and are fastened in each string fastening slot 6.

[0011]

And although it is going to return the inside of the string fastening slot 6 according to a string's flexible contraction or slack if the edge is put for a string from opening of the string fastening slot 6 with tension and tension is canceled in order to stop Shoelace A The string fastening slot 6 is V typeface, and since Yamagata ** 5 of a large number which inclined toward the effective area toward insertion opening side 3 to other end side 4 from the groove bottom is moreover formed in the slot inner surface, String A fits into a wedge shape to the groove bottom where Yamagata ** 5 countered. Migration in the direction of slack comes to be fixed.

[0012]

In addition, although the example which formed the single insertion opening 2 which lengthens two strings A together, arranges them and inserts them, and formed the string fastening slot 6 which branched to the two way type in the inner part of this insertion opening 2 explained in the above-mentioned example Even if it forms independently insertion opening and the string fastening slot used as a single string, respectively so that it may be fastened to the separate string fastening slot made into this insertion opening and a single string from separate insertion opening with which two strings are inserted according to an individual, the same operation and effectiveness can be attained.

[0013]

As for the bottom of the slot of a cross-section V typeface, it is desirable from the point of maintenance on the strength to consider as a cross-section U typeface (graphic display abbreviation). Moreover, moreover, the string stop subject 1 The members A and B divided into bilateral symmetry by the parting line a along the slot of a cross-section V typeface as shown in drawing 5 in two or more locations b, c, d, and e which do not cross the insertion opening 2 and the string fastening slot 6 as shown in drawing 6 Since carrying out coalesce association and forming with a transfer joining means, a direct joining means, a RIBETTINGU means, a metal-insert means, spot joining, or a welding means can simplify a mold on a shaping fabrication Fabrication cost can be made cheap and a ceramic can also use an aluminum containing alloy as a metallic material again.

[0014]

[Translation done.]

DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]

[Drawing 1] It is the front view of the string stops concerning this design.

[Drawing 2] It is the top view of the string stops concerning this design.

[Drawing 3] It is the right side view of the shoelace stops concerning this design.

[Drawing 4] It is the left side view of the shoelace stops concerning this design.

[Drawing 5] It is the top view of the shoelace stops concerning other examples.

[Drawing 6] It is the front view of the shoelace stops concerning this example.

[Description of Notations]

1 String Stop Subject 2 Insertion Opening

3 Insertion Opening Side 4 Other End Side

5 Yamagata ** 6 String Fastening Slot

A String

[Translation done.]